



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/658,604

09/10/2003

Josef Glasmann

1454.1474

1918

21171 7590 04/21/2008

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

HOANG, HIEU T

ART UNIT

PAPER NUMBER

2152

MAIL DATE

DELIVERY MODE

04/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/658,604 | Applicant(s) GLASMANN ET AL. | |
| | Examiner HIEU T. HOANG | Art Unit 2152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-14, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-14, 19, 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/10/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/13/2008 has been entered.

2. Claims 1, 2, 15-18 are cancelled.
3. Claims 19 and 20 are new.
4. Claims 3-14, 19 and 20 are pending.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 19 (all limitations) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

6. Applicant's arguments have been fully considered but are moot in view of new ground(s) of rejection.

Claim Objections

7. Claims 3-14, 19 and 20 are objected to because of the following informalities:

8. Claim 5 recites "said recording" and "said mapping" on lines 2-3. There is no antecedent basis for these elements in the claim. It seems that claim 5 should be dependent on claim 20, since there are "recording" and "mapping" in claim 20. Appropriate correction is required.

9. For claim 19, "a topology change" on line 6 should be "the topology change" as it refers back to "a topology change" on line 2. "The topology change information" on line

9 lacks antecedent basis. To cure this deficiency, “analyzing change information” on line 6 should be “analyzing topology change information.”

10. For claim 8, “static resource reservation mode” on lines 2 and 4 should be “the static resource reservation mode.” Same rationale applies to claim 10.

11. For claim 12, “upon the resource manager upon establishing an overbooking” on lines 1-2 is believed to be a grammatical error. “An overbooking” should be “the overbooking” referring back to an overbooking in claim 11.

12. For claim 13, lines 7 and 8 should be merged together since they are in a same sentence.

13. For claim 14, “topology manager” on line 4 should be “the topology manager”

14. Applicant is required to check for and correct similar lack of antecedent basis problem in the remaining claims.

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

17. The claim recites “a method for checking, by a resource manager in an automatic process, transmission resources” in the preamble and “temporarily entering into a static

resource reservation mode in the resource manager when an inconsistency phase is detected in the topology change information by the resource manager” in the last limitation. However, it is not clear how entering into a static resource reservation mode would affect automatic checking of transmission resources, since no explicit actual steps are recited regarding the static resource reservation mode. Furthermore, no meaningful interpretation can be derived from “a static resource reservation mode,” since it is merely a name without any descriptions of what it is or what to do during that mode (i.e., it is not clear whether the resource reservation is static during the mode, and what the word “static” really means...) Correction is required.

Claim Rejections - 35 USC § 103

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sundqvist et al. (WO 02/21797 A1, hereafter Sundqvist), in view of Valeroso et al. (Performance Analysis of Resource Reservation Strategies in Broadband Networks, hereafter Valeroso).

20. For claim 19, Sundqvist discloses a method for checking, by a resource manager in an automatic process, transmission resources of a packet-oriented communication network upon a topology change, comprising:

checking reservation of the transmission resources based on topology data relating to network topology of the packet-oriented communication network (p. 10 lines 4-7, the resource manager decides transmission resources and correct routing based on the topology of the IP network, p. 13, lines 10-24, a bandwidth request or a reservation of transmission resource is based on resource map which is based on topology);

analyzing change information generated as a result of a topology change of the network topology and received by the resource manager, an inconsistency phase is detected in the topology change information by the resource manager (p. 11, lines 21-23, the resource manager monitors changes or inconsistency in topology; p. 11 lines 21-25, any topology change is acknowledged by the resource manager); and

Sundqvist does not disclose:

temporarily entering into a static resource reservation mode in the resource manager.

However, Valeroso discloses using a static resource reservation mode as a resource management method during call initiation (p. 309, Static resource reservation model (SRRM), p. 307, right col., par. 3)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Sundqvist and Valeroso to implement a static resource reservation mode upon receiving topology change such as during call connection initiation (Valeroso, p. 311, VI, section A; p. 307, right col., par. 3)

21. Claims 3-8, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundqvist and Valeroso, as applied to claim 19 above, and further in view of Dinker et al. (US 7,024,483, hereafter Dinker).

22. For claim 3, the claim is rejected as in claim 19. Sundqvist-Valeroso does not explicitly disclose extending the static resource reservation mode in the resource manager by a specified period in response to receipt of additional topology change information during the static resource reservation mode.

However, Dinker discloses extending a transient phase in response to receipt of additional topology change information during the transient phase (Dinker, col. 13 l. 10-12, col. 8 lines 11-13, while in a transient state or transitional state of resolving connection request, a node holds subsequent connect requests or additional topology change requests for a pending time to process them after the status of previous requests have been resolved).

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Sundqvist, Valeroso and Dinker to extend a transient state or static resource reservation mode in order to prevent conflicting requests from conflicting or complicating reservation decision in the topology (Dinker, col. 13 l. 5-10)

23. For claim 4, the claim is rejected as in claim 3. Sundqvist-Valeroso-Dinker further discloses the specified period is dependent on at least one of an extent of change in the topology and a size of the packet-oriented communication network (Dinker, col. 13 l. 10-12, col. 8 lines 11-13, the more topology change requests there are to the topology, the longer the queue or the transient phase is).

24. For claim 20, Sundqvist-Valeroso-Dinker further discloses when the inconsistency phase ends, recording, by the resource manager, new topology data relating to changed topology of the packet-oriented communication network (Sundqvist, p. 11 lines 21-23, record change in topology); and mapping, by the resource manager, an existing reservation of the transmission resources to the changed topology, based on the new topology data (Sundqvist, p. 11 lines 21-23, updating the resource map).

25. For claim 5, the claim is rejected as in claim 4. Sundqvist-Valeroso-Dinker further discloses leaving the static resource reservation mode in the resource manager after at least one of said recording of the new topology data and said mapping of the existing resource reservation to the changed topology (Dinker, col. 13 l. 26-28, a node may transition from a transient state to a joined state after completing any updates of its topology data).

26. For claim 6, the claim is rejected as in claim 5. Sundqvist-Valeroso-Dinker further discloses specifically marking, by the resource manager, a resource reservation made during the static resource reservation mode (Dinker, col. 13 l. 10-12, subsequent connection requests are queued for processing during the transient state).

27. For claim 7, the claim is rejected as in claim 6. Sundqvist-Valeroso-Dinker further discloses reservation of the transmission resources in the static resource reservation mode is based on old topology data present before the topology change (Dinker, col. 7 lines 15-20, col. 9 lines 50-52, static topology applies to the connection requests in transient state).

28. For claim 8, the claim is rejected as in claim 6. Sundqvist-Valeroso-Dinker further discloses rejecting, by the resource manager in static resource reservation mode, resource requests (Dinker, col. 7 lines 8-12, rejecting subsequent requests to avoid conflicts, Valeroso, fig. 2, reject or block the negotiate request in call resource negotiation) and allowing resource releases independently of assignment of the transmission resources (Valeroso, fig. 3, p. 309, left col. eighth bullet, call resource relinquishment requests are accepted).

29. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sundqvist, Valeroso, Dinker, as in claim 6, further in view of Prehofer et al. (Scalable Resource Management Architecture for VoIP, 2000, hereafter Prehofer).

30. For claim 9, the claim is rejected as in claim 6. Sundqvist-Valeroso-Dinker does not explicitly disclose transferring a localization specification with the topology change information to specify an area of the packet-oriented communication network affected by the topology change.

However, Prehofer discloses localization specification specifying an area of the packet-oriented communication network affected by the topology change (fig. 6, section 6.1, par. 4 and 5, multiple resource management domains specifying an area of topology change)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Sundqvist, Valeroso, Dinker and Prehofer to divide a large network into small resource management domains to reduce performance requirement for each resource manager and faster reaction times (Prehofer, section 6.1, par. 4).

31. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundqvist, Valeroso, Dinker, Prehofer as in claim 9, further in view of what has been known in the art (hereafter ON).

32. For claim 10, the claim is rejected as in claim 9. Sundqvist-Valeroso-Dinker-Prehofer further discloses:

rejecting, by the resource manager in static resource reservation mode, resource requests which affect the area specified by the localization specification (Dinker, col. 7 lines 8-12, rejecting subsequent requests to avoid conflicts, Valeroso, fig. 2, reject or block the negotiate request in call resource negotiation); and

processing, by the resource manager in static resource reservation mode, resource requests which do not affect the area specified by the localization specification based on the reservation of transmission resources present before the topology change (Prehofer, section 6.4, par. 7, inter-domain resource management for reservation setup requests outside domain);

Sundqvist-Valeroso-Dinker-Prehofer does not disclose rejecting resource requests regardless of transmission resource;

Official notice (ON) is taken that rejecting resource requests regardless of transmission resource is well known in the art at the time of the invention (see e.g., Ma, US 6,493,317, col. 2 lines 49-51, rejecting requests regardless of available resources)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Sundqvist, Valeroso, Dinker and Prehofer and what has been known in the art to reject requests regardless of available resources to block all resource requests and make the resources available.

Art Unit: 2152

33. For claim 11, the claim is rejected as in claim 10. Sundqvist-Valeroso-Dinker-Prehofer-ON further discloses said mapping of the existing resource reservation to the changed topology includes the resource manager checking whether an overbooking of the transmission resources is occurring (Sundqvist, col. 13 lines 14-28, a preliminarily booking of a resource that can not be mapped due to lacking of resource).

34. For claim 12, the claim is rejected as in claim 11. Sundqvist-Valeroso-Dinker-Prehofer-ON further discloses upon the resource manager upon establishing an overbooking, one of clearing a connection contributing to the overbooking by assigning the connection to another class of service to be carried via another route (Sundqvist, col. 13 lines 19-28, a user prioritizes a service in favor of the other, in case of lack of resource, switch to a lower quality service), and using coding with reduced resource requirements.

35. For claim 13, the claim is rejected as in claim 12. Sundqvist-Valeroso-Dinker-Prehofer-ON further discloses said mapping of the existing reservation of resources to the changed topology includes at least one of preferring more recent connections to older connections; preferring voice connections to connections of other connection types (Sundqvist, col. 12 lines 1-2, gatekeeper prioritizes services whenever topology changes occur by letting voice service to have higher priority than other services, e.g., video service); preferring connections with at least one of a user feature-dependent priority and a service feature-dependent priority; preferring connections with relatively low resource requirements; and preferring connections set up outside the static resource reservation mode to connections set up during the static resource reservation mode during an assignment of transmission resources.

36. For claim 14, the claim is rejected as in claim 13. Sundqvist-Valeroso-Dinker-Prehofer-ON further discloses recording the topology data relating to the topology of the packet-oriented communication network by a topology manager; and transferring the topology data from topology manager to the resource manager (Dinker, fig. 2, topology manager 203, state manager 202, Sundqvist, fig. 5, resource manager, Prehofer, 6.2, topology recording).

Conclusion

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Bertin et al. US 5,687,167.
- Benfield et al. US 2003/0009551.
- Svanberg et al. US 7,190,698.
- Zhang et al. US 2003/0028641.
- Natarajan. US 5,826,169.
- Gibson et al. US 6,680,943.
- Kennedy. US 2003/0202512.

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Bunjob Jaroenchonwanit/

Supervisory Patent Examiner, Art Unit 2152